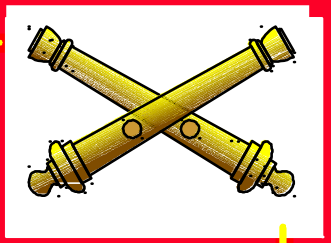
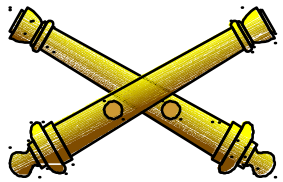
GUNNERY DEPARTMENT

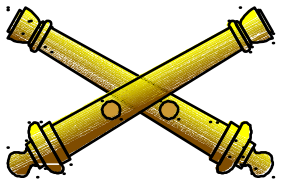


THE KING OF BATTLE

USAFAS

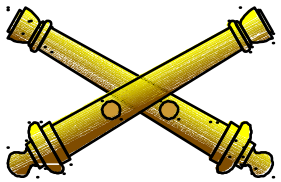


Automated Safety



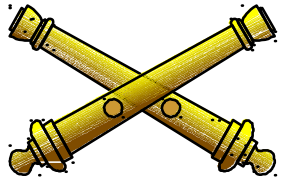
FOUR BASIC STEPS OF SAFETY

1. RANGE SAFETY CARD
2. BASIC SAFETY DIAGRAM
3. SAFETY MATRIX
4. SAFETY “T”



Pre-Occupation Low Angle Safety

GUNNERY DEPARTMENT



RANGE SAFETY CARD

PG 15-7 and Phase III PG 135

Unit/STR **C/2-37 FA** Scheduled Date In **Ø9/27/96** Scheduled Date Out **Ø9/27/96**
Time In **ØØ73Ø** Time Out **2359**

Firing Point **185 (6ØØ263 41ØØ98)** HT **37Ø.Ø** Impact Area **S. CARLTON AREA**

Weapon **M1Ø9A3 (155)** Ammo **M1Ø7, M11Ø, M116, M825, M557, M582, M732, M577**

Type of Fire **LOW ANGLE**
Direction Limits: (Ref GN): **Left 134Ø MILS** Right **19ØØ MILS**
Low Angle PD Minimum Range **39ØØ** METERS Min Charge **4GB**
Fuze TI and High Angle Minimum Range **39ØØ** METERS Min Charge **4GB**
To Establish MIN Time for Fuze VT Apply +5.5 seconds to the Low Angle PD Min Rg
Maximum Range to Impact **62ØØ** METERS Max Charge **4GB**

COMMENTS

From AZ 134Ø TO AZ 15ØØ MAXIMUM RANGE IS 57ØØ

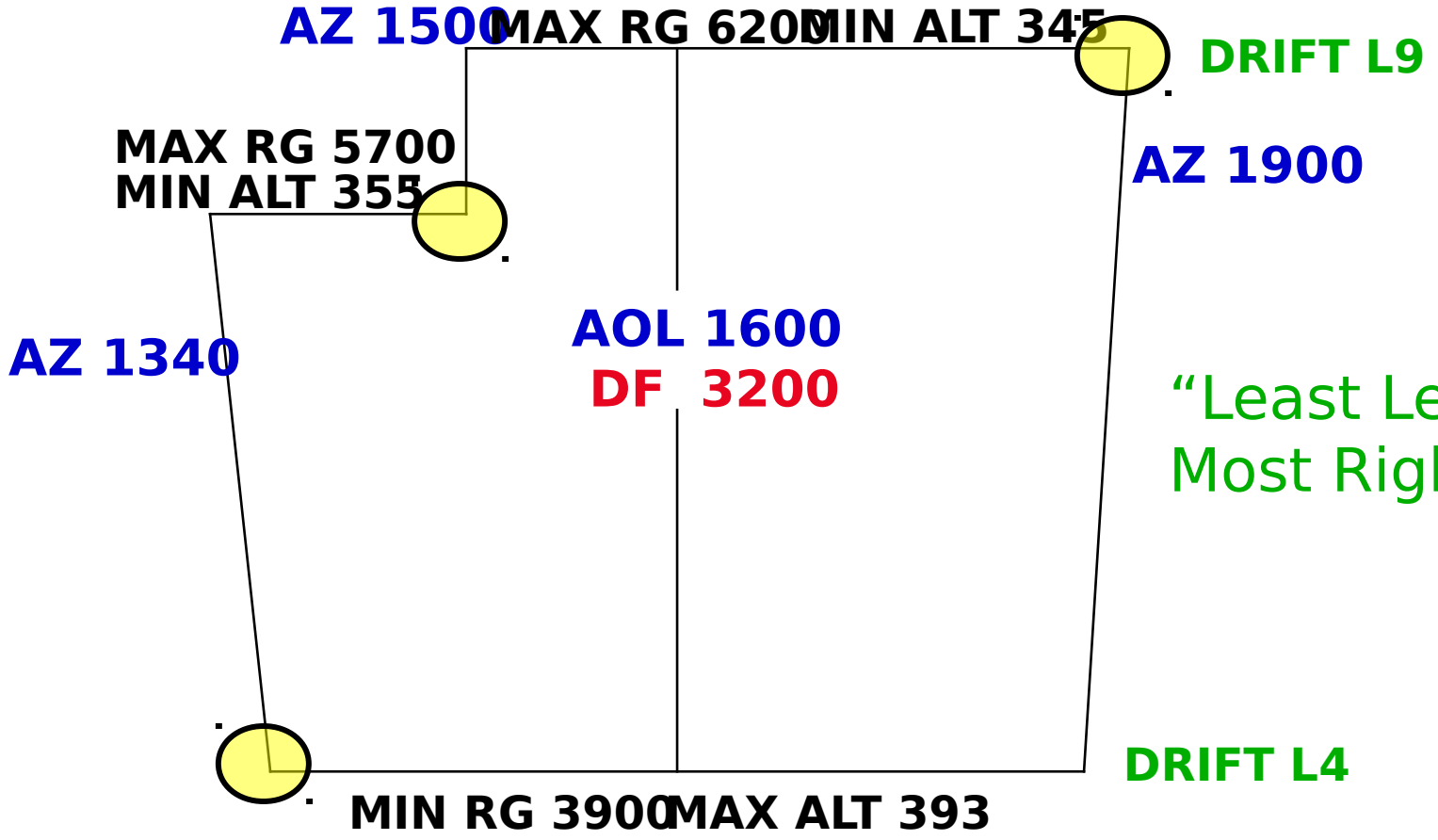
USAFAS

GUNNERY DEPARTMENT

BASIC SAFETY DIAGRAM

PG 15-8, and Phase III PG 135

FP 185 60263 41098 ALT 370, CHG 4GB, LOW ANGLE, HE/WP/HC, PD/TI/VT, AOL 1600



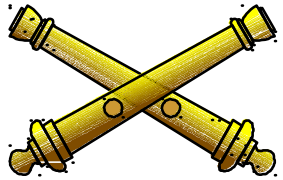
USAFAS

GUNNERY DEPARTMENT

LOW ANGLE SAFETY MATRIX

PRE-OCCUPATION SAFETY

Phase III PG 136-138



Min QE	DIR	DIST	VI	LOT	CHG	Left DF	Min QE	TF	+5.5	VT
HE	1340	3900	+23	A/G	3465	228	13.6	19.1	20.0	
	4GB									

Min QE	DIR	DIST	VI	LOT	CHG	Min QE
WP	1340	3900	+23	W/G	235	
	4GB					

Min TI	DIR	DIST	VI	LOT	CHG	Min TI
HE	1340	3900	+23	A/G	13.7	
	4GB					

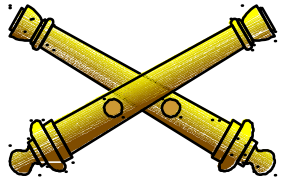
Min TI	DIR	DIST	VI	LOT	CHG	Min TI
WP	1340	3900	+23	W/G	13.9	
	4GB					

Int DF	DIR	DIST	VI	LOT	CHG	Int DF	Max QE
HE	1500	5700	-15	A/G	3308	352	
	4GB						

Max QE	DIR	DIST	VI	LOT	CHG	Right DF	Max QE
HE	1900	6200	-25	A/G	2910	395	
	4GB						

USAFAS

GUNNERY DEPARTMENT



SAFETY “T”

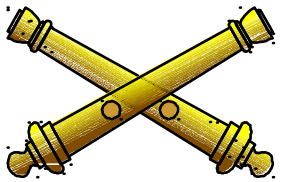
PG 15-10, Phase III PG 139

FP 185 60263 41098 ALT 370, CHG 4GB, LOW ANGLE, HE/WP/HC, PD/TI/VT, AOL 1600

352	395		MAX QE
3465	3308	2910	DF
228			MIN QE HE
235			MIN QE WP
13.7			MIN TI HE (M582)
13.9			MIN TI WP (M582)
20.0			MIN TI VT (M732)

USAFAS

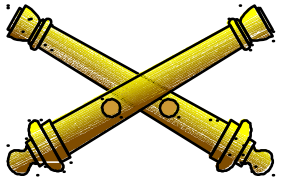
Note: Remember to compare Min QE with XO’s Min QE



Pre-Occupation High Angle Safety

GUNNERY DEPARTMENT

RANGE SAFETY CARD



Unit/STR **C/2-37 FA**/ Scheduled Date In **Ø9/27/96** Scheduled Date Out **Ø9/27/96**
Time In **Ø7:3Ø** Time Out **23:59**

Firing Point **185 (6ØØ263 41Ø98)** HT **37Ø.Ø** Impact Area **S. CARLTON AREA**

Weapon **M1Ø9A3 (155)** Ammunition **M1Ø7, M557**

Type of Fire **HIGH ANGLE**
Direction Limits: (Ref GN): Left **134Ø** MILS Right **19ØØ** MILS
Low Angle PD Minimum Range **N/A** METERS Min Charge **2GB**
Fuze TI and High Angle Minimum Range **31ØØ** METERS Min Charge **2GB**
To Establish MIN Time for Fuze VT Apply +5.5 seconds to the Low Angle PD Min Rg
Maximum Range to Impact **44ØØ** METERS Max Charge **2GB**

COMMENTS

From **AZ 134Ø** TO **AZ 15ØØ** MAXIMUM RANGE IS **4ØØØ**

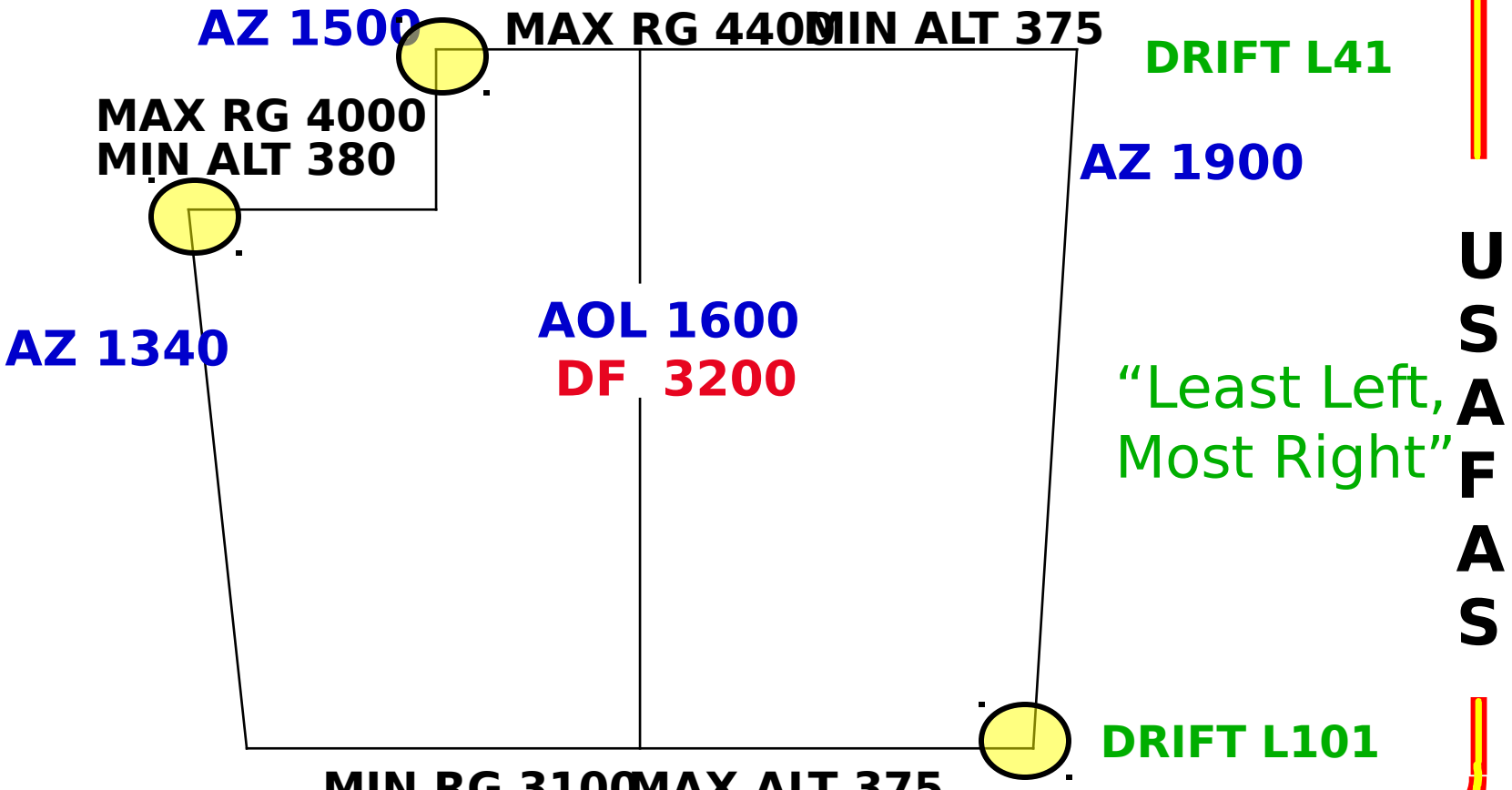
USAFAS

GUNNERY DEPARTMENT

BASIC SAFETY DIAGRAM

PG 15-8, and Phase III PG 140

FP 185 60263 41098 ALT 370, CHG 2GB,
HIGH ANGLE, HE, PD, AOL 1600



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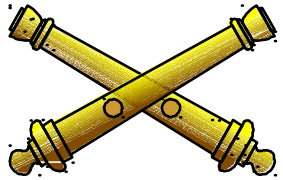
GUNNERY DEPARTMENT



HIGH ANGLE SAFETY MATRIX
PRE-OCCUPATION SAFETY
Phase III PG 141

Max QE	DIR	DIST	VI	LOT	CHG	Right DF	Max QE
HE	1900	3100	+5	A/G	3012	1239	
	2GB						

Int DF	DIR	DIST	VI	LOT	CHG	Int DF	Min QE
HE	1500	4400	+5	A/G	3345	1047	
	2GB						

Min QE	DIR	DIST	VI	LOT	CHG	Left DF	Min QE
HE	1340	4000	+10	A/G	3516	1120	
	2GB						

USAFAS

GUNNERY DEPARTMENT

HIGH ANGLE
SAFETY “T”

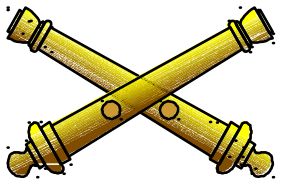
PG 15-24, Phase III PG 142

FP 185 60263 41098 ALT 370, CHG 2GB, HIGH ANGLE, HE, PD, AOL 1600

	1239		MAX QE
3516	3345	3012	DF
	1120 1047		MIN QE HE

USAFAS

GUNNERY DEPARTMENT



Post-Occupation Low Angle Safety

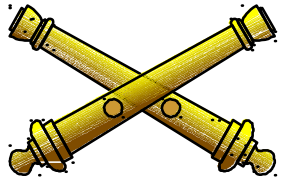
USAFAS

GUNNERY DEPARTMENT

LOW ANGLE SAFETY MATRIX

POST-OCCUPATION SAFETY

Phase III PG 142-143



Min QE	DIR	DIST	VI	LOT	CHG	Left DF	Min QE	TF	+5.5	VT
HE	1340	3900	+23	A/G	3476	232	14.0	19.5	20.0	
	4GB									

Min QE	DIR	DIST	VI	LOT	CHG	Min QE
WP	1340	3900	+23	W/G	236	
	4GB					

Min TI	DIR	DIST	VI	LOT	CHG	Min TI
HE	1340	3900	+23	A/G	14.1	
	4GB					

Min TI	DIR	DIST	VI	LOT	CHG	Min TI
WP	1340	3900	+23	W/G	14.2	
	4GB					

Int DF	DIR	DIST	VI	LOT	CHG	Int DF	Max QE
HE	1500	5700	-15	A/G	3319	358	
	4GB						

Max QE	DIR	DIST	VI	LOT	CHG	Right DF	Max QE
HE	1900	6200	-25	A/G	2923	398	
	4GB						

USAFAS

GUNNERY DEPARTMENT

UPDATED SAFETY "T"

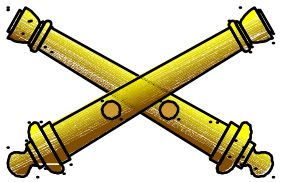
FP 185 60263 41098 ALT 370, CHG 4GB, LOW ANGLE, HE/WP/HC, PD/TI/VT, AOL 1600

358	398		MAX QE
3476	3319	2923	DF
232			MIN QE HE
236			MIN QE WP
14.1			MIN TI HE (M582)
14.2			MIN TI WP (M582)
20.0			MIN TI VT (M732)

USAFAS

Note: Remember to compare Min QE with XO's Min QE

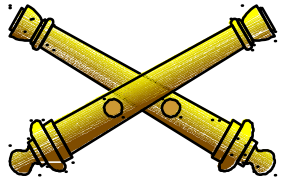
GUNNERY DEPARTMENT



Post-Occupation High Angle Safety

USAFAS

GUNNERY DEPARTMENT



HIGH ANGLE SAFETY MATRIX
POST-OCCUPATION SAFETY
Phase III PG 142-143

Max QE	DIR	DIST	VI	LOT	CHG	Right DF	Max QE
HE	1900	3100	+5	A/G	3052	1225	
	2GB						

Min QE	DIR	DIST	VI	LOT	CHG	Left DF	Min QE
HE	1340	4000	+10	A/G	3527	1105	
	2GB						

Int DF	DIR	DIST	VI	LOT	CHG	Int DF	Min QE
HE	1500	4400	+5	A/G	3356	1030	
	2GB						

USAFAS

GUNNERY DEPARTMENT

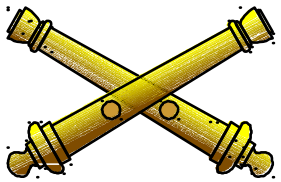
UPDATED HIGH ANGLE SAFETY “T”

FP 185 60263 41098 ALT 370, CHG 2GB, HIGH ANGLE, HE, PD, AOL 1600

	1225		MAX QE
3527	3356	3052	DF
1105	1030		MIN QE HE

USAFAS

GUNNERY DEPARTMENT



Post-Registration Low Angle Safety

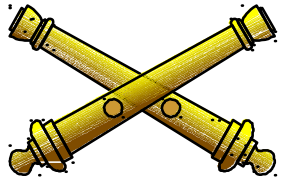
USAFAS

GUNNERY DEPARTMENT

LOW ANGLE SAFETY MATRIX

POST-REGISTRATION SAFETY

Phase III PG 142-143



Min QE	DIR	DIST	VI	LOT	CHG	Left DF	Min QE	TF	+5.5	VT
HE	1340	3900	+23	A/G	3472	230	14.0	19.5	20.0	
	4GB									

Min QE	DIR	DIST	VI	LOT	CHG	Min QE
WP	1340	3900	+23	W/G	234	
	4GB					

Min TI	DIR	DIST	VI	LOT	CHG	Min TI
HE	1340	3900	+23	A/G	13.3	
	4GB					

Min TI	DIR	DIST	VI	LOT	CHG	Min TI
WP	1340	3900	+23	W/G	13.4	
	4GB					

Int DF	DIR	DIST	VI	LOT	CHG	Int DF	Max QE
HE	1500	5700	-15	A/G	3315	355	
	4GB						

Max QE	DIR	DIST	VI	LOT	CHG	Right DF	Max QE
HE	1900	6200	-25	A/G	2919	396	
	4GB						

USAFAS

GUNNERY DEPARTMENT

UPDATED SAFETY "T"

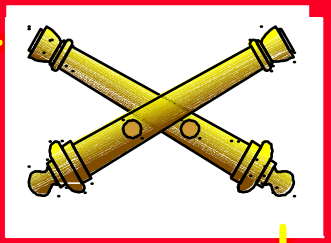
FP 185 60263 41098 ALT 370, CHG 4GB, LOW ANGLE, HE/WP/HC, PD/TI/VT, AOL 1600

355	396		MAX QE
3472	3315	2919	DF
230			MIN QE HE
234			MIN QE WP
13.3			MIN TI HE (M582)
13.4			MIN TI WP (M582)
20.0			MIN TI VT (M732)

USAFAS

Note: Remember to compare Min QE with XO's Min QE

GUNNERY DEPARTMENT



THE KING OF BATTLE

USAFAS